```
CCCACGCGTCCGGGCTTTGTCTCGTGGGCTGGTCCCCAGCGGCTCCGTCCCCGAACAGCTGCTGCTCCAGGGAGGAAGC

GGCGCGGGTGCTGTCCAGCTTCCCCGTGCTGAAAACCGGAGGGCTCGTCATCCACCACTACCATGTAAGGGCCATGAGA

                                M  E  E  D  L  F  Q  L  R  Q  L  P  V      13
AGGGCTCATCCTGGCGCAGCGCGGAC ATG GAG GAG GAC TTA TTC CAG CTA AGG CAG CTG CCG GTT      39

 V  K  F  R  R  T  G  E  S  A  R  S  E  D  D  T  A  S  G  E      33
GTG AAA TTC CGT CGC ACA GGC GAG AGT GCA AGG TCA GAG GAC GAC ACG GCT TCA GGA GAG      99

 H  E  V  Q  I  E  G  V  H  V  G  L  E  A  V  E  L  D  D  G      53
CAT GAA GTC CAG ATT GAA GGG GTC CAC GTG GGC CTA GAG GCT GTG GAG CTG GAT GAT GGG     159

 A  A  V  P  K  E  F  A  N  P  T  D  D  T  F  M  V  E  D  A      73
GCA GCT GTG CCC AAG GAG TTT GCC AAT CCC ACC GAT GAT ACT TTC ATG GTG GAA GAT GCA     219

 V  E  A  I  G  F  G  K  F  Q  W  K  L  S  V  L  T  G  L  A      93
GTG GAA GCC ATT GGC TTT GGA AAA TTT CAG TGG AAG CTG TCT GTT CTC ACT GGC TTG GCT     279

 W  M  A  D  A  M  E  M  M  I  L  S  I  L  A  P  Q  L  H  C     113
TGG ATG GCT GAT GCC ATG GAG ATG ATG ATC CTC AGC ATC CTG GCA CCA CAG CTG CAT TGC     339

 E  W  R  L  P  S  W  Q  V  A  L  L  T  S  V  V  F  V  G  M     133
GAG TGG AGG CTC CCA AGC TGG CAG GTG GCA TTG CTG ACC TCG GTG GTC TTT GTA GGC ATG     399

 M  S  S  S  T  L  W  G  N  I  S  D  Q  Y  G  R  K  T  G  L     153
ATG TCC AGC TCC ACG CTC TGG GGA AAT ATC TCA GAC CAG TAC GGC AGG AAA ACA GGG CTG     459

 K  I  S  V  L  W  T  L  Y  Y  G  I  L  S  A  F  A  P  V  Y     173
AAG ATC AGC GTG CTG TGG ACT CTG TAC TAT GGC ATC CTT AGT GCA TTT GCG CCC GTG TAT     519

 S  W  I  L  V  L  R  G  L  V  G  F  G  I  G  G  V  P  Q  S     193
AGC TGG ATC CTG GTG CTC CGG GGC CTG GTG GGC TTC GGG ATC GGA GGA GTT CCC CAG TCG     579

 V  T  L  Y  A  E  F  L  P  M  K  A  R  A  K  C  I  L  L  I     213
GTG ACG CTG TAT GCC GAG TTC CTT CCC ATG AAA GCC AGA GCT AAA TGT ATT TTG CTG ATT     639

 E  V  F  W  A  I  G  T  V  F  E  V  V  L  A  V  F  V  M  P     233
GAG GTA TTC TGG GCC ATC GGG ACA GTG TTC GAG GTC GTC CTG GCT GTG TTC GTG ATG CCC     699

 S  L  G  W  R  W  L  L  I  L  S  A  V  P  L  L  L  F  A  V     253
AGC CTG GGC TGG CGT TGG CTG CTC ATC CTC TCA GCT GTC CCG CTC CTC CTC TTT GCC GTG     759

 L  C  F  W  L  P  E  S  A  R  Y  D  V  L  S  G  N  Q  E  K     273
CTG TGT TTC TGG CTG CCT GAA AGT GCA AGG TAT GAT GTG CTG TCA GGG AAC CAG GAA AAG     819

 A  I  A  T  L  K  R  I  A  T  E  N  G  A  P  M  P  L  G  K     293
GCA ATC GCC ACC TTA AAG AGG ATA GCA ACT GAA AAC GGA GCT CCC ATG CCG CTG GGG AAA     879

 L  I  I  S  R  Q  E  D  R  G  K  M  R  D  L  F  T  P  H  F     313
CTC ATC ATC TCC AGA CAG GAA GAC CGA GGC AAA ATG AGG GAC CTT TTC ACA CCC CAT TTT     939

 R  W  T  T  L  L  L  W  F  I  W  F  S  N  A  F  S  Y  Y  G     333
AGA TGG ACA ACT TTG CTG CTG TGG TTT ATA TGG TTT TCC AAT GCA TTC TCT TAC TAC GGG     999
```

Figure 1

L V L L T T E L F Q A G D V C G I S S P 353
TTA GTT CTA CTC ACC ACA GAA CTC TTC CAG GCA GGA GAT GTC TGC GGC ATC TCC AGT CCG 1059

K K A V E A K C S L A C E Y L S E E D Y 373
AAG AAG GCT GTA GAG GCA AAA TGC AGC CTG GCC TGC GAG TAC CTG AGT GAG GAG GAT TAC 1119

M D L L W T T L S E F P G V L V T L W I 393
ATG GAC TTG CTG TGG ACC ACC CTC TCT GAG TTT CCA GGT GTC CTT GTG ACT CTG TGG ATT 1179

I D R L G R K K T M A L C F V I F S F C 413
ATT GAC CGC CTG GGG CGC AAG AAG ACC ATG GCC CTG TGC TTT GTC ATC TTC TCC TTC TGC 1239

S L L L F I C V G R N V L T L L L F I A 433
AGC CTC CTG CTG TTT ATC TGT GTT GGA AGA AAT GTG CTC ACT CTG TTA CTC TTC ATT GCA 1299

R A F I S G G F Q A A Y V Y T P E V Y P 453
AGA GCG TTT ATT TCT GGA GGC TTT CAA GCG GCA TAT GTT TAC ACA CCT GAG GTC TAC CCC 1359

T A T R A L G L G T C S G M A R V G A L 473
ACG GCA ACG CGG GCC CTC GGC CTG GGC ACC TGC AGC GGC ATG GCA AGA GTG GGT GCT CTC 1419

I T P F I A Q V M L E S S V Y L T L A V 493
ATC ACT CCG TTC ATC GCC CAG GTG ATG CTG GAA TCC TCT GTG TAC CTG ACT CTG GCA GTT 1479

Y S G C C L L A A L A S C F L P I E T K 513
TAC AGT GGC TGC TGC CTC CTG GCT GCC CTG GCC TCC TGC TTT TTG CCC ATT GAG ACC AAA 1539

G G G L Q E S S H R E W G Q E M V G R G 533
GGC GGA GGA CTG CAG GAG TCC AGC CAC CGG GAG TGG GGC CAG GAG ATG GTC GGC CGA GGA 1599

M H G A G V T R S N S G S Q E * 549
ATG CAC GGT GCA GGT GTT ACC AGG TCG AAC TCT GGC TCT CAG GAA TAG 1647

TGACCGATGGGGGACTGAGCTGGTCTTTGAGGCTGCAGAGCTTGGGGGGCTGGCAGGCCCCAACTGGGGCACTGATTGT

CACTGCCGACATCAAGAACTCACCCAAGAGTATGACCTGGACCAACAGGGTTTTGTGTCTTGACTCAGTTTGCTCATCT

TCATTGAGGTCCACCCAGGGATGGGGAGATGTTTGCTCTAGGGGGTTCTCTGTATATGTGGTGAAAGCTTTGTTCATAA

CCTGTGGATCTACATGGGAAGACTACCCATATTAGGAGGGTCTGGTAATGCCAGCAACCAATCAGACACCACCCAGAGT

CACCCGGCCAAACCCTCAGTGAACAACCAAAATATCTCTCTGTAGATACCGTCCAGGCTCAGGCCCATGTGACACCTGC

TGTCCACCCACCGGACCTGTTCAGTAGGTTTCTCCCACACCCACAGCCCCAGGCTTTCTTCTTTGAAATTGCAGGCGAT

CTAGGTGTGGTCTGAGCAGCTATTTCCTGGCAGGGGCCCCCCGGTTTGCCTCCCTAGAGCCTGACCAGTGGATTCTCTG

GCAGATGGACATGGTGCATTCAAACTGGAGCCACATGCCCCCACCCAGCCCCTNTTGGAGTTGCCCGTTGTTGGCACCA

AGAGATCCAGATGTGTCCTGGGGACAGCTGGGTCTTGCACCAGGTGACAACCTCAAAACGCCGTTACCCCCTGGGGAAC

TGAGGACTGAGSGCCAAGTG

Figure 1 continued

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    *wCFMAaFGGmFMFGWDTGVINgFvwMIdFhYRFgMmhydwtyYl....S
        + A+G     F W    V  G +WM D + ++ ++     ++
132  EDAVEAIGF-GKFQWKLSVLTGLAWMADAMEMMILSILAPQLHCEWRLP   179

    TMRWgLIVSIFnIGCMIGSIFfGWIgDMYGRRmsMMMvNvIFIIGIIIMI
    + + +L +S  -+G+M +S ++G+I+D YGR+ -+ ++++      +I+++
180 SWQVALLTSVVFVGMMSSSTLWGNISDQYGRKTGLKISVLWTLYYGILSA   229

    fSinysWWMYIIGRIImGIGVGgISvlvPMYISEIAPkHlRGtMvSWYQL
    F++   +  +++ R ++G+G+GG  + V +Y +E+ P + R +++ + ++
230 FAP--VYSWILVLRGLVGFGIGGVPQSVTLY-AEFLPMKARAKCILLIEV   276

    MITiGIFIAYCfNYgfnyYnNdsWQWRWPLGLcFIWAIfMIIgMMFlPES
    +++IG ++   +  +++ + +    WRW+L+L++++ +++ +++++LPES
277 FWAIGTVFEVVLAVFVMPSLG----WRWLLILSAVPLLLFAVLCFWLPES   322

    PRWLVikGriEEARrsLqRlRgwdDVDpEIQEMMDeIeaMiEEElagNaS
     R+ V+ G+ E+A ++L+R+ ++  + + +   + + ++        +
323 ARYDVLSGNQEKAIATLKRIATENGAPMPLGKLIISRQED-------RGK   365

    WgELFrrrtPkMRWRiIMgMMIQiFQQFTGINYIMYYsTTIFesVGMq*
     + LF+ +    RW +-+  +I+++       ++ YY+ ++ ++  +Q
366 MRDLFTPHF---RWTTLLLWFIWFSN------AFSYYGLVLLTTELFQ    404
```

Figure 2

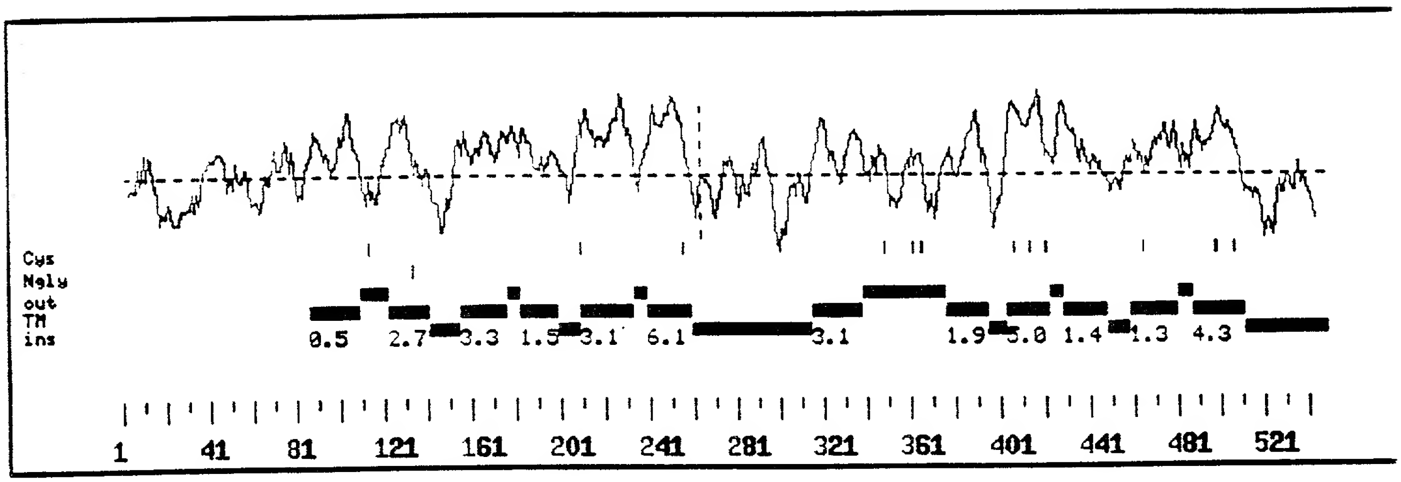
Cys
Ngly
out
TM
ins
0.5
2.7
3.3
1.5
3.1
6.1
3.1
1.9
5.0
1.4
1.3
4.3
1
41
81
121
161
201
241
281
321
361
401
441
481
521

Figure 3

GTCGACCCACGCGTCCGAGCAAAGAGGATTACATGGACCTGCTGTGGACCACCCTGTCTG
AGTTCCCAGGTGTCCTTGTGACTCTGTGGGTCATCGACCGCCTGGGCCGCAAGAAGACCA
TGGCTCTGTGTTTCGTCATCTTTTCCCTCTGCAGCCTCCTGCTGTTCATCTGCATTGGAA
GAAATGTGCTAACCCTCTTACTGTTCATTGCAAGAGCGTTTATTTCTGGAGGCTTCCAAG
CAGCCTACGTTTACACGCCTGAGGTGTATCCAACGGCGACGAGGGCGCTGGGCCTGGGCA
CCTGCAGCGGCATGGCGAGAGTGGGCGCGCTCATCACTCCATTCATAGCTCAGGTGATGC
TGGAATCTTCCGTGTACCTGACCCTGGCCGTCTACAGTGGCTGCTGCCTCCTTGCTGCCT
TGGCCTCCTGCTTTCTGCCCATCGAGACCAAAGGCCGAGCACTGCAGGAGTCCAGCCACC
GGGAGTGGGGCCAGGAGATGGTTGGCCGAGGGACAAACAGCACAGGCGTCCCCAGGTCGA
ACTCTGGCTCTCAGGAGTAGTGACCCCTGGGAGTTGAGCTGGTCTTTGAGGCCGGAGCCT
AGAAAGCTGGCAGAGCCCAGCTGGGCCACTAACGGTCACTGCCGACATCAAGAACTTTCC
CCGAGTGGGCGAAGTGAACCGACAGGGTTTTGTGTCTTCACTGTGTTTGGCCTATGTTCA
TCGAGGGTTGCCCGCCCCAGGAAGATGGGGCTGCATTCACTCCAGGGGGTTCTTCCGTGG
TGGGGGAAAGGGTTGGTACGTCGCCGTGGATCTGCATGGGGGAAGCTGCTAGTGTGGGAG
GGTCCCAGGGCGCTCAGGGCCAGCTGAGCAGATGTCACGTGGTTACCCAGTCATACCCTT
GGAGAGCCACTGTCCAAAGATCTCCATAGATACAGTCTCAGCCCAGACCCCTGTGACACC
CGCCATTTTGTCCAGTAAGTTTCTCCTGCACCCTGGCCCCAGGATGTCTTTGGAATTAAG
ACAAGCTAATTAGTGTCCGACTAGAGCAGCTTTTCTGGAGCCTGAGACACCCCCCTCCCC
GTTGCTTCCTTGGTTGGGCCCCTCTAGATGTCTCTTCAGGGCCTGCCGGGTAGAAACTGA
CTGAAGAATGTGCTTGTGAATTTGAGCCAAGCATCATCCCCCATTGACCCCTTCTGGAGC
CTCTGTCTCTGGCTGCAGAGGGTCCTGTTATATTTCTGGGGAGAGCTAGGTACCCACCAG
GCGACAGACCCAGAAAATTGTTAACCCATTCCCTGTCTTGGAAATCGGAGAGTGAGGCCT
AGCAGAGGGGAGACTAAGGGCCAAAACCAAAGCCAGAGTCACCCCTGAAGCAGTTAGGGC
CTTTCTGGGCCCTCTCTCTTACCCTCCCACCCCCACTCAGCCCCACTACATAGCGAGTCC
CGGTTTCCTCAGGCTTCCAGACTCGTCTGTGTGTAGGTGGCGGCATGAGCTTAGGGATCT
CCATGGCAAAGCACCAAGTGCCGGCCCATTAAGTCTTGGGACGGAGAACCTGTTGCCCCT
TCCGGCTCTGCCTCTGCTTTCTCTCCTGCTCCTCTGTCAAGGGCAGGGCTGGTCCTACAG
AGGCGGGTCCCGGGAGGATGTCCCGGCTCGAGGATCAGGAAAGCCCATCTCAGAGGGAGA
CAGGAGGCTGTTGTCTTGGCCTCAGGAGGAAGGTAGGTCTGAAGGCAGTCCACGTGTACT
CCCGGATTCCGGAACGCACGAGCCGCCCCTCTGAGATTCAGGAAAGAAGCACGCAGGGGG
AGGAAGGAGATGGCCAGGCCCCAATCAAAGGCCAGAGGAAACTGGCCGCTTTGCTTGATG
GACACCTCGCAAGGGAGCCAAATGTGCGTTGTGCGCTCATCTCTTA

Figure 4